FIG. 1A

PRIOR ART

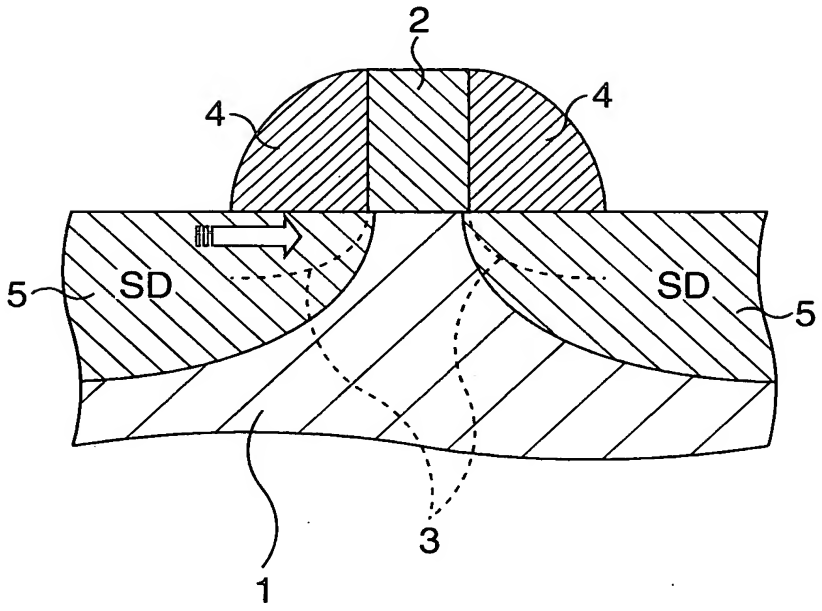


FIG. 1B

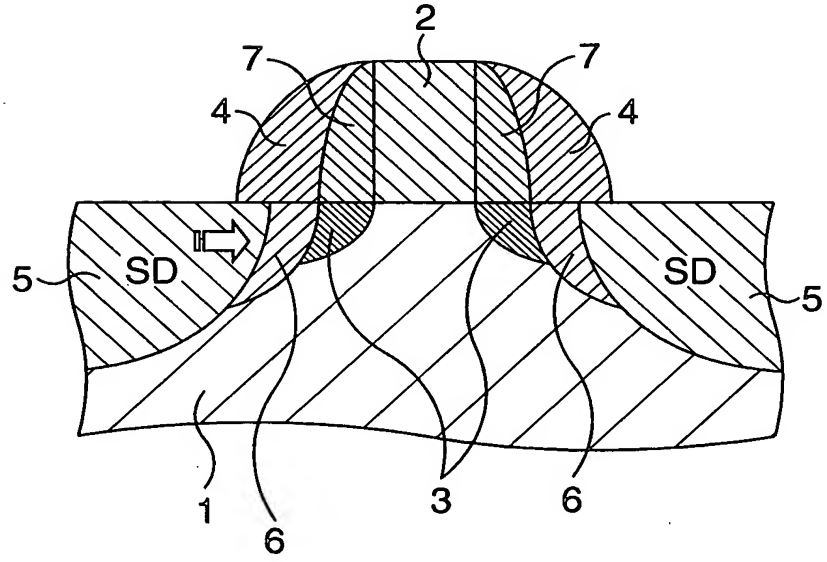


FIG. 2A

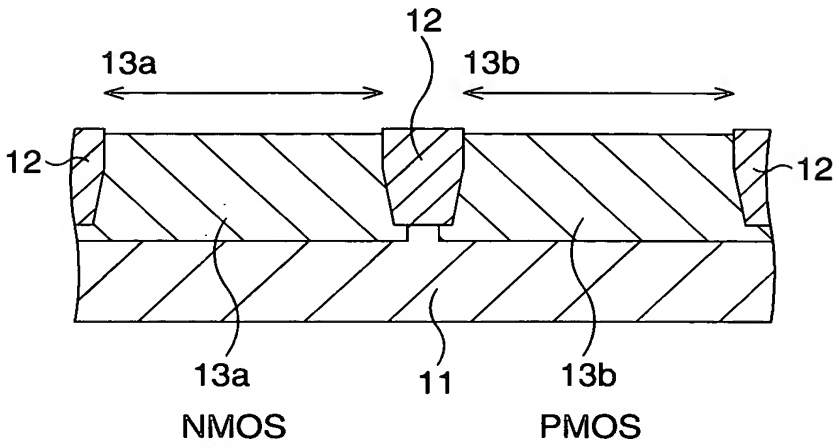


FIG. 2B

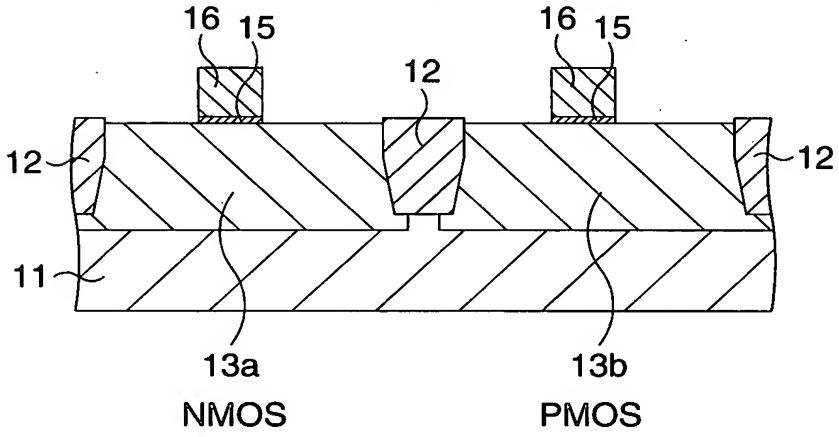


FIG. 2C

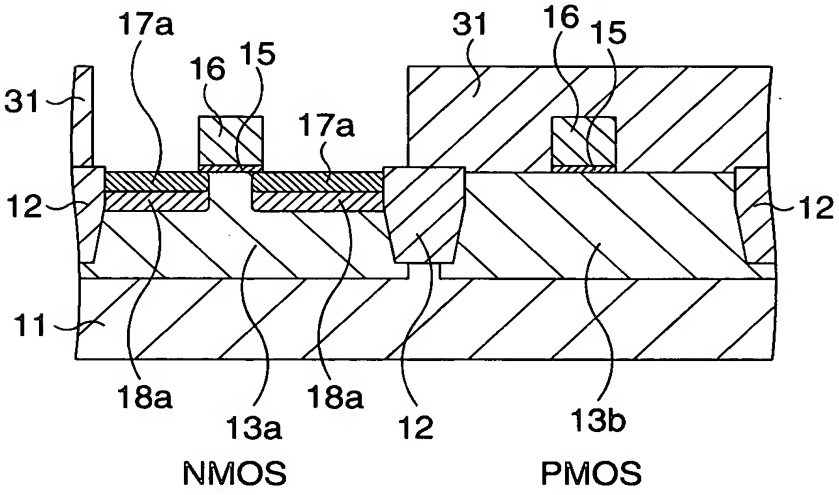


FIG. 3A

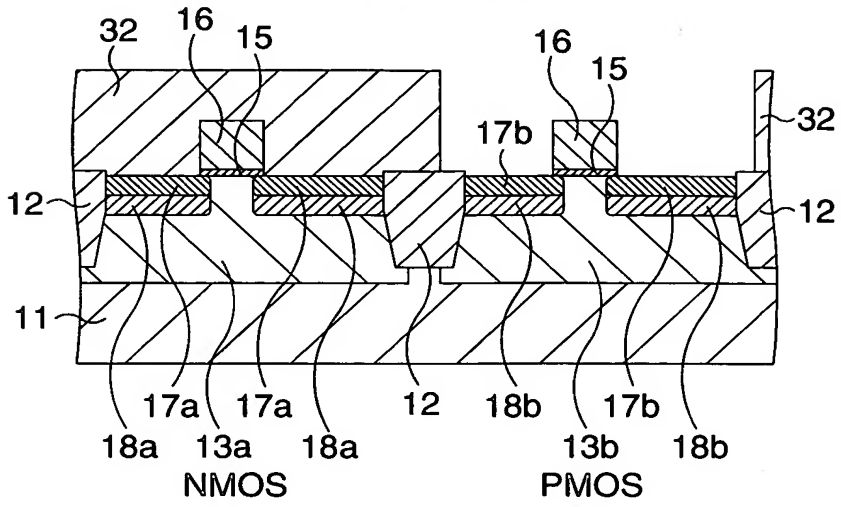


FIG. 3B

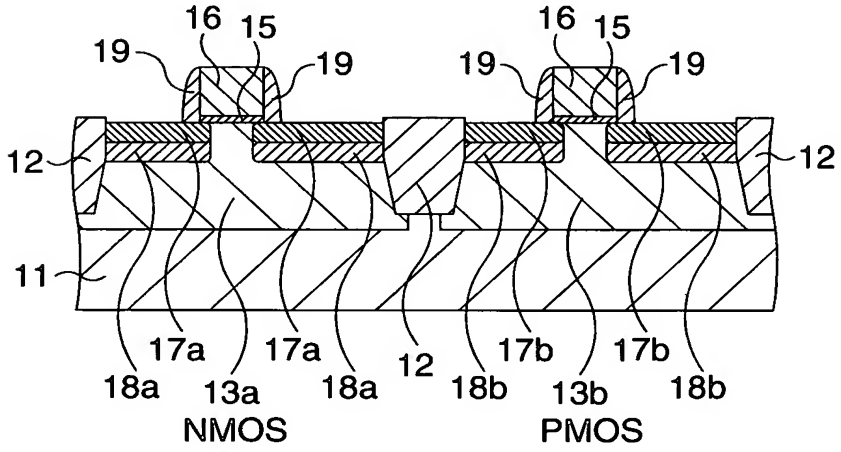


FIG. 3C

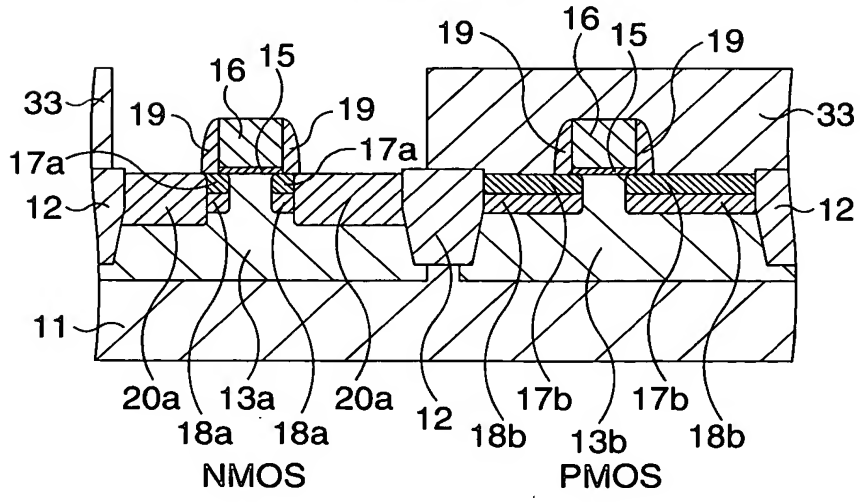


FIG. 4A

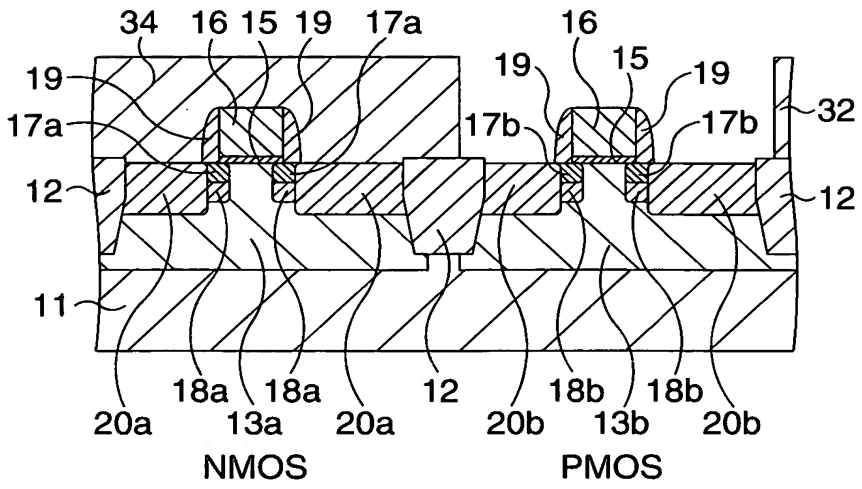


FIG. 4B

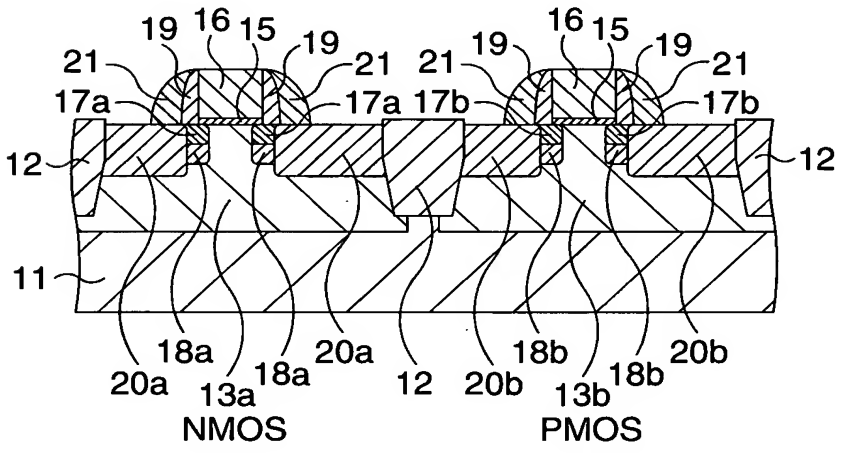


FIG. 4C

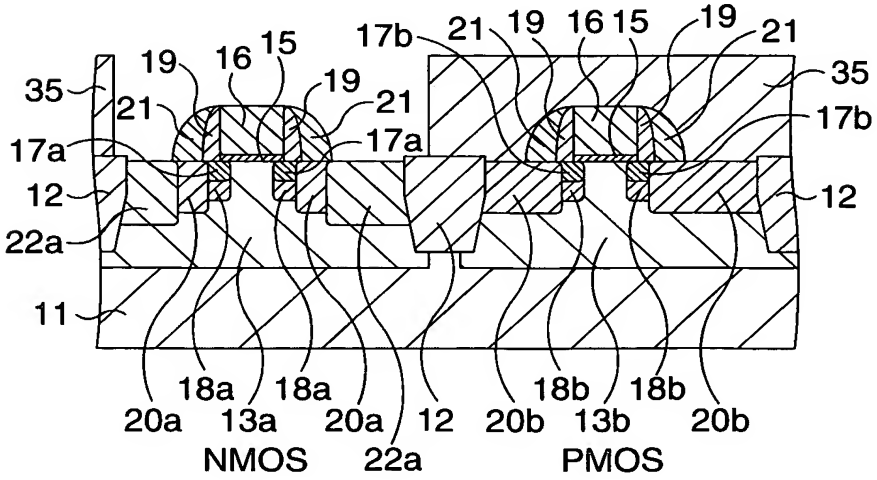
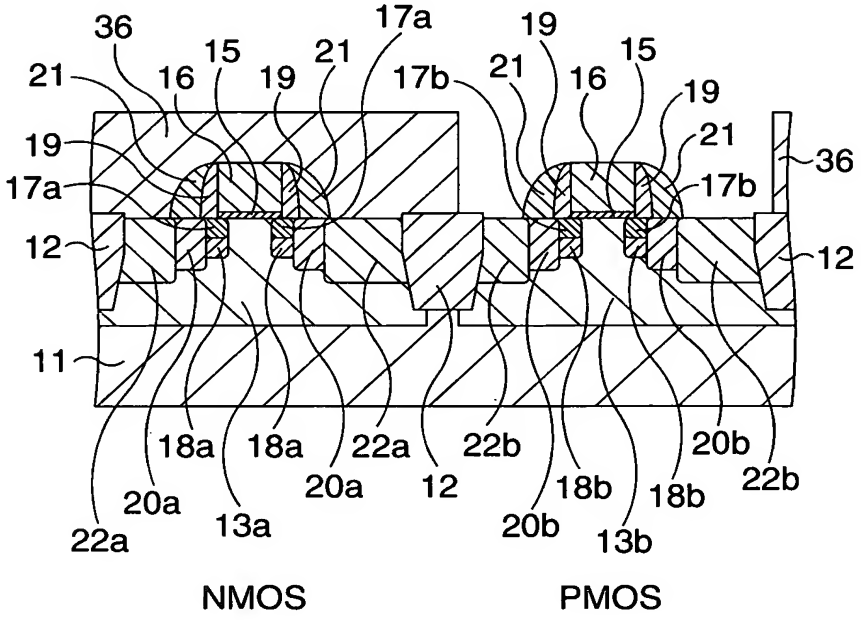


FIG. 5A


36
15
21
17a
19
16
21
17b
19
15
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16
19
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36
17a
17b
12
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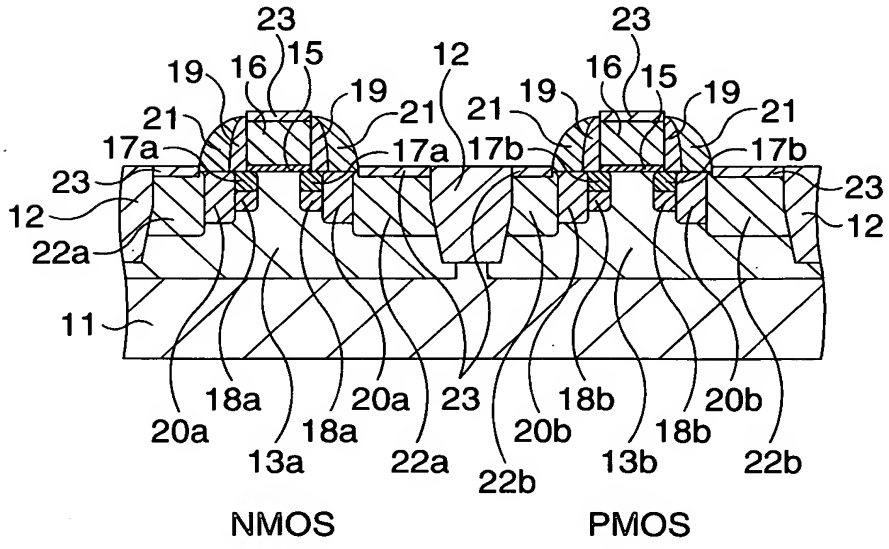
11
18a
18a
22a
22b
20b
22b
20a
20a
12
18b
18b
22a
13a
20b
13b
NMOS
PMOS

FIG. 5B


23
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17a
17b
17b
23
23
12
12
22a
11
18a
20a
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18b
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18b
13a
22a
22b
13b
22b
NMOS
PMOS

FIG. 6

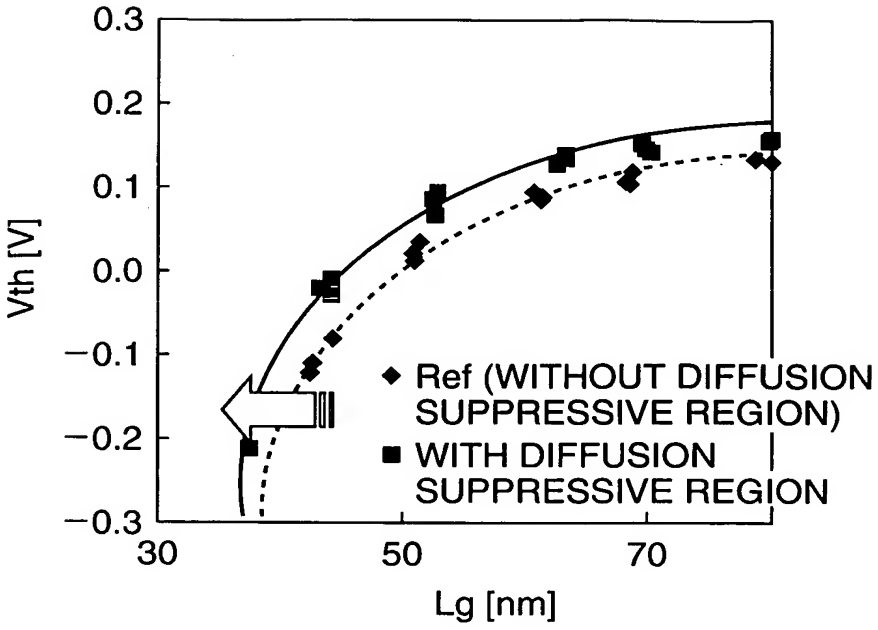

0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
Vth [V]
30
50
70
Lg [nm]
◆ Ref (WITHOUT DIFFUSION SUPPRESSIVE REGION)
■ WITH DIFFUSION SUPPRESSIVE REGION

FIG. 7

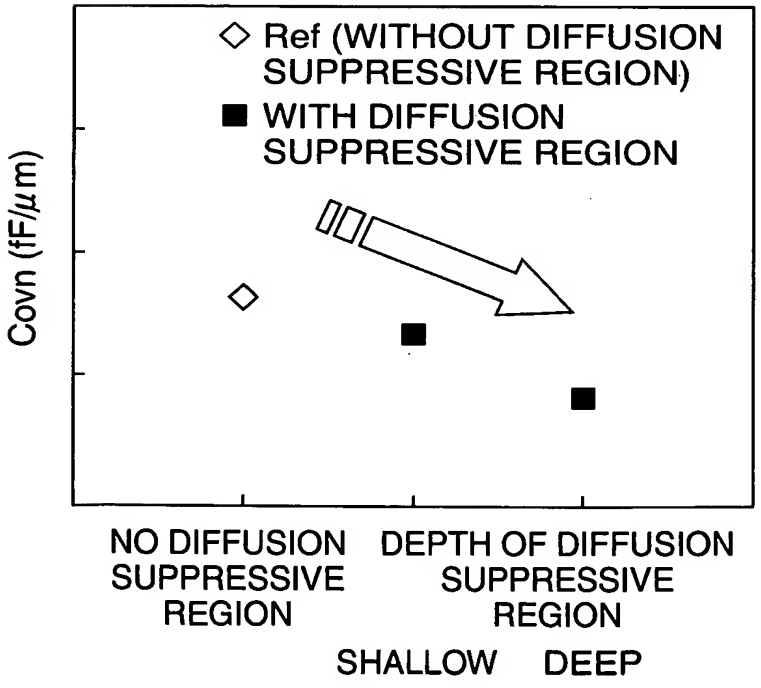
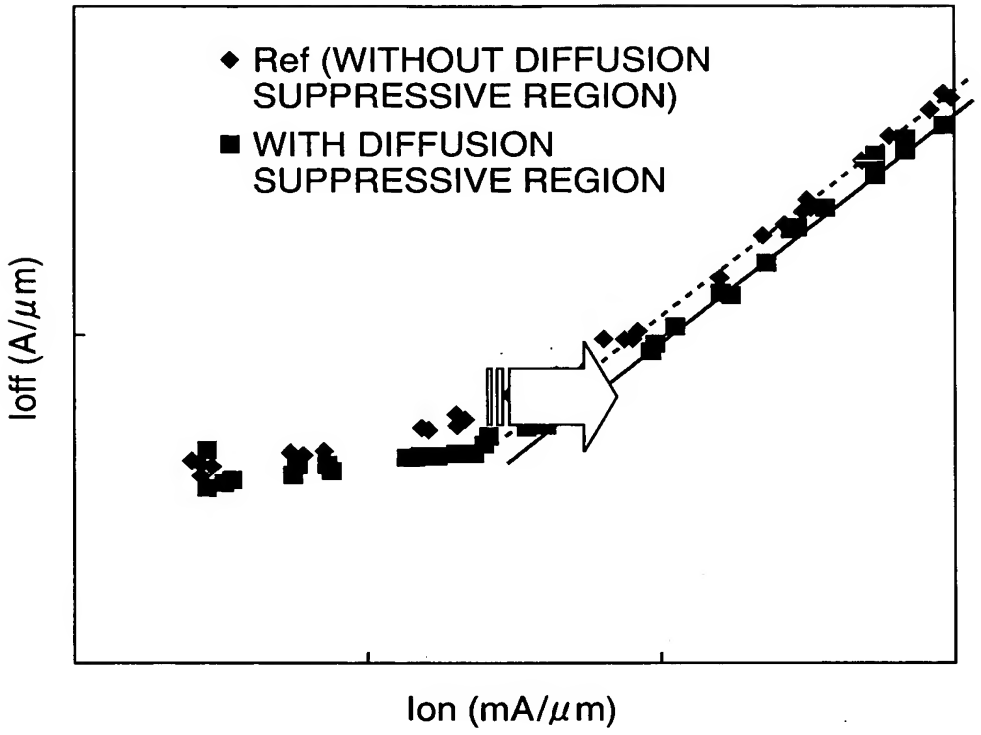

◇ Ref (WITHOUT DIFFUSION SUPPRESSIVE REGION)
■ WITH DIFFUSION SUPPRESSIVE REGION
Covn (fF/μm)
NO DIFFUSION SUPPRESSIVE REGION
DEPTH OF DIFFUSION SUPPRESSIVE REGION
SHALLOW
DEEP

FIG. 8


◆ Ref (WITHOUT DIFFUSION SUPPRESSIVE REGION)
■ WITH DIFFUSION SUPPRESSIVE REGION
Ioff (A/μm)
Ion (mA/μm)